Customer No. 20,995

Docket No.: ASMEX.446A

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INFORMATION DISCLOSURE STATEMENT

Arena et al.

App. No

10/800,417

Filed

March 11, 2004

For

SiGe RECTIFICATION PROCESS

Examiner

Unknown

Art Unit

2812

CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

March 11, 2005

(Date)

Andrew N. Merickel, Reg. No. 53,317

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application is an Information Disclosure Statement by Applicant (PTO/SB/08 equivalent) listing 40 references to be considered by the Examiner. Also enclosed are 21 foreign patent references and/or non-patent literature as listed on the Information Disclosure Statement.

This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required. If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 11, 2065

Andrew N. Merickel

Registration No. 53,317

Attorney of Record

Customer No. 20,995

(415) 954-4114

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Please Direct All Correspondence to Customer Number 20995

TRANSMITTAL LETTER INFORMATION DISCLOSURE STATEMENT

Applicant

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Andrew N. Merickel, Reg. No. 53,317

Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement and PTO/SB/08 equivalent listing references for consideration:
 - (X) Listing 40 references.
 - (X) Enclosing 21 references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Andrew N. Merickel Registration No. 53,317 Attorney of Record

Customer No. 20,995

(415) 954-4114

1331932_1 031005

MAR 1 4 2005 10/800,417 Application No. INFORMATION DISCLOSURE Filing Date March 11, 2004 First Named Inventor Chantal J. Arena STATEMENT BY APPLICANT Art Unit 2812 (Multiple sheets used when necessary) Examiner Unknown ASMEX.446A SHEET 1 OF 3 Attorney Docket No.

U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No. Document Number No. Document Number Number - Kind Code (if known) Example: 1,234,567 B1		Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	1	6,646,073	04/2003	Kondo			
	2	6,709,901	03/2004	Yamazaki, et al.			
	3	2002/0173130	11/2002	Pomerede, et al.			
	4	3,602,778	08/31/71	Ura, et al			
	5	3,720,877	03/13/73	Zarowin			
	6	3,729,645	04/24/73	Redington			
	7	3,737,739	06/05/73	Blakeslee, et al.			
	8	3,984,718	10/05/76	Fein, et al.			
	9	3,984,857	10/05/76	Mason			
	10	3,985,590	10/12/76	Mason			
-	11	4,461,820	07/24/84	Shirai, et al.			
	12	4,656,013	04/07/87	Hiai, et al.			
	13	4,699,892	10/13/87	Suzuki			
··-	14	4,786,574	11/22/88	Shirai, et al.			
	15	4,803,186	02/07/89	Chen, et al.			
	16	4,857,270	08/15/89	Maruya, et al.			
	17	4,868,014	09/19/89	Kanai, et al.			
-	18	4,983,274	01/08/91	Chen, et al.			
	19	5,037,775	08/06/91	Reisman			
	20	5,112,439	05/12/92	Reisman, et al.			
	21	5,281,274	01/25/94	Yoder			
	22	5,281,299	01/25/94	Escoffier, et al.			
·	23	5,294,285	03/15/94	Kanai, et al.			
	24	5,316,958	05/31/94	Meyerson			
	25	5,366,554	11/22/94	Kanai, et al.			
	26	5,482,557	01/09/96	Kanai, et al.			
	27	5,576,247	11/19/96	Yano, et al.			
	28	5,646,073	07/08/97	Grider, et al.			
	29	5,667,586	09/16/97	Ek, et al.			

Examiner S	ianature
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Date Considered

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached.

STATEMENT BY APPLICANT

Application No. 10/800,417

Filing Date March 11, 2004

First Named Inventor Chantal J. Arena
Art Unit 2812

Examiner Unknown

Attorney Docket No. ASMEX.446A

(Multiple sheets used when necessary)
SHEET 2 OF 3

U.S. PATENT DOCUMENTS						
Examiner Initials Cite No. Document Number Number - Kind Code (if known Example: 1,234,567 B1		Number - Kind Code (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevar Figures Appear	
	30	5,818,100	10/06/98	Grider, et al.		
	31	6,242,080 B1	06/05/01	Kondo		
	32	6,451,641 B1	09/17/02	Halliyal, et al.		
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	34	2003/0010978 A1	01/16/03	Burden		
	35	2003/0111013 A1	06/19/03	Oosterlaken, et al.		
· · · · · · · · · · · · · · · · · · ·	36	2003/0157787	08/21/03	Murthy et al.		
	37	2003/0207127	11/06/03	Murthy et al.		
	38	2003/0235931	12/25/03	Wada et al.		
	39	2003/0230233	12/18/03	Fitzgerald et al.		

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹
	40	JP 62017004	01/26/87	Japan	,	-

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹
	41	TAKAGI ET AL., "Device structure and electrical characteristics of strained-Si-on-insulator (strained-SOI) MOSFETs", Materials Science and Engineering B89 (2002), pp. 426-434	
		LIM ET AL., " <u>Dry thermal oxidation of a graded SiGe layer</u> ", Applied Physics Letters, Vol. 79, No. 22, November 26, 2001, pp. 3606-3608	
	43	SUGIYAMA ET AL., "Fabrication of SiGe on Insulator Structure using Ge Condensation Technique", Third International Conference on SiGe (C) Epitaxy and Heterostructures (ICSI3), Santa Fe, NM, March 9-12, 2003, pp. 153-153	
	44	MIZUNO ET AL., "Advanced SOI p-MOSFETs with Strained-Si Channel on SiGe-on-Insulator Substrate Fabricated by SIMOX Technology", IEEE Transactions on Electron Devices, Vol. 48, No. 8, August 2001, pp. 1612-1618	
	45	MIZUNO ET AL., "Electron and Hole Mobility Enhancement in Strained-Si MOSFET's on SiGe-on- Insulator Substrates Fabricated by SIMOX Technology", IEEE Electron Device Letters, Vol.21, No. 5, May 2000, pp. 230-232	
	46	AUZUNO ET AL "Novel COLD Channel MOSEETs With Higher Strain in Si Channel Using Double	

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Date Considered

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A MORE		PTO/SB/08 Equivalent
MAR 1 & 2005	Application No.	10/800,417
INFORMATION DISCLOSURE	Filing Date	March 11, 2004
STATEMENT BY APPLICANT	First Named Inventor	Chantal J. Arena
STATEMENT BY AFFLICANT	Art Unit	2812
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 3 OF 3	Attorney Docket No.	ASMEX.446A

		NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No.	tom (book magazina journal carial cumpacium catalag atc.) data paga(c) Valuma-Icciia					
	47	TSUTOMU TEZUKA, " <u>Strained Si- and SiGe-MOSFETs on SiGe-on-insulator (SGOI) substrates"</u> , 2002 Japan Epitaxial Technology Symposium, "Advanced Substrate Engineering and Device Technology", February 27, 2002					
	48	TEZUKA ET AL., "Fabrication of strained Si on an ultrathin SiGe-on-insulator virtual substrate with a high-Ge fraction", Applied Physics Letters, Vol 79, No. 12, September 17, 2001, pp. 1798-1800					
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	52	COLACE, L. ET AL., "Efficient high-speed near-infrared Ge photodetectors integrated on Si substrates", Applied Physics Letters, Volume 76, Number 10, March 6, 2000, pp. 1231-1233.					
	53	Quantum Electronics, Vol. 35, No. 12, December 1999, pp. 1843-1852.					
	54	FAMA, S. ET AL., "High performance germanium-on-silicon detectors for optical communications", Applied Physics Letters, Volume 81, Number 4, July 22, 2002, pp. 586-588.					
	55	HULL, R., "Metastable strained layer configurations in the SiGe/Si system", (1999) EMIS Datareviews, Series No. 24: Properties of SiGe and SiGe:C, edited by Erich Kasper et al., INSPEC (2000), London, UK					
	56	Physics Letters, Volume 82, Number 12, March 31, 2003, pp. 2044-2046.					
	57	LEE ET AL., "Growth of strained Si and strained Ge heterostructures on relaxed Si _{1-x} G _{ex} by ultrahigh vacuum chemical vapor deposition", J. Vac. Sci. Technol. B 22(1) (Jan/Feb 2004).					
	58	LI, Q, ET AL., "Selective growth of Ge on Si(100) through vias of SiO ₂ nanotemplate using solid source molecular beam epitaxy", Applied Physics Letters, Volume 83, Number 24, December 15, 2003, pp. 5032-5034.					
	59	LIU, J. ET AL., "Silicidation –induced band gap shrinkage in Ge epitaxial films on Si", Applied Physics Letters, Volume 84, Number 5, February 2, 2004, pp. 660-662.					
	60	MASINI, G. ET AL.; "High-Performance p-i-n Ge on Si Photodetectors for the Near Infrared: From Model to Demonstration", IEEE Transactions of Electron Devices, Vol. 48, No. 6, June 2001, pp. 1092-1096.					
	`61	SCHOLLHORN ET AL., "Coalescence of germanium islands on silicon", Thin Solid Films," Vol. 336 (1988), pp. 109-111.					

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Examiner Signature

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